

CLAIMS

1. A patterned flame resistant fabric, comprising:
a plurality of non-producer colored high tenacity, flame resistant fibers;
a plurality of cellulosic fibers containing a flame retardant compound; and
at least one color that is printed on the fabric to form said pattern.
2. The fabric of claim 1, wherein said high tenacity, flame resistant fibers are para-aramid fibers.
3. The fabric of claim 1, wherein said cellulosic fibers are selected from rayon, acetate, triacetate, and lyocell.
4. The fabric of claim 1, wherein said cellulosic fibers are rayon fibers.
5. The fabric of claim 1, wherein said fabric has a percentage composition of high tenacity, flame resistant fibers of at least 10%.
6. The fabric of claim 1, wherein said fabric has a percentage composition of high tenacity, flame resistant fibers from approximately 10% to 60%.
7. The fabric of claim 1, wherein said fabric has a percentage composition of high tenacity, flame resistant fibers of approximately 40%.

8. ~~The fabric of claim 1, wherein said fabric contains a residual amount of dye-assistant selected from the group consisting of N-cyclohexylpyrrolidone, benzyl alcohol, N,N-dibutylformamide, N,N-diethylbenzamide, hexadecyltrimethyl ammonium salt, N,N-dimethylbenzamide, N,N-diethyl-m-toluamide, N-octylpyrrolidone, aryl ether, an approximately 50/50 blend of N,N-dimethylcaprylamide and N,N-dimethylcapramide, and mixtures thereof.~~

9. The fabric of claim 1, wherein said fabric contains a residual amount of dye-assistant selected from the group consisting of aryl ether, benzyl alcohol, N,N-dibutyl formamide, N-octylpyrrolidone, and mixtures thereof.

10. A method for forming a pattern on a flame resistant fabric containing high tenacity, flame resistant fibers and cellulosic fibers that contain a flame retardant compound, comprising:

contacting the flame resistant fabric with a dye-assistant selected from the group consisting of N-cyclohexylpyrrolidone, benzyl alcohol, N,N-dibutylformamide, N,N-diethylbenzamide, hexadecyltrimethyl ammonium salt, N,N-dimethylbenzamide, N,N-diethyl-m-toluamide, N-octylpyrrolidone, aryl ether, an approximately 50/50 blend of N,N-dimethylcaprylamide and N,N-dimethylcapramide, and mixtures thereof; and

printing at least one color on said fabric;

wherein the flame resistant fabric is not exposed to a temperature exceeding 100°C.

11. The method of claim 10, wherein the high tenacity, flame resistant fibers are para-aramid fibers.
12. The method of claim 10, wherein the cellulosic fibers are selected from rayon, acetate, triacetate, and lyocell.
13. The method of claim 10, wherein the cellulosic fibers are rayon fibers.
14. The method of claim 10, wherein the fabric has a percentage composition of high tenacity, flame resistant fibers of at least 10%.
15. The method of claim 10, wherein the fabric has a percentage composition of high tenacity, flame resistant fibers from approximately 10% to 60%.
16. The method of claim 10, wherein the fabric has a percentage composition of high tenacity, flame resistant fibers of approximately 40%.
17. The method of claim 10, wherein the fabric is contacted with a dye-assistant selected from the group consisting of aryl ether, benzyl alcohol, N,N-dibutyl formamide, N-octylpyrrolidone, and mixtures thereof.

18. The method of claim 10, wherein the fabric is not exposed to a temperature exceeding 85°C.

19. The method of claim 10, wherein three different colors are printed onto the fabric.

20. The method of claim 10, wherein four different colors are printed onto the fabric.

21. The method of claim 10, wherein the fabric is printed on using a rotary screen printing apparatus.

22. The method of claim 10, further comprising dyeing the fabric a base shade prior to printing.

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~~22.~~ The method of claim 22, wherein dyeing is conducted at temperatures not exceeding 100°C.

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~~23.~~ The method of claim 22, wherein dyeing is conducted at temperatures not exceeding 85°C.

24. The method of claim 22, wherein the fabric is dyed using a jet dyer.

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25. The method of claim 10, wherein the pattern comprises a camouflage pattern.

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